

# Upper Salinas-Las Tablas Resource Conservation District



65 S. Main St. Ste. 107 Templeton, CA 93465 | 805.434.0396 x 5 | [www.us-ltrcd.org](http://www.us-ltrcd.org)

## Ag Water Conservation Offset Program Proposal



### Prepared for:

James Caruso and Kami Griffin  
SLO County Planning & Building

### Prepared by:

Laura Edwards and Kelly Gleason  
Upper Salinas-Las Tablas  
Resource Conservation District

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## Program Goal Summary:

This is a proposal to create a water offset program for the County of San Luis Obispo (Offset Program). This program addresses the area overlying the Paso Robles Groundwater Basin – and issues relating to the urgency ordinance. The program will offer a water use offset program for agricultural users aimed at balancing future water demands with water savings with the goal of maintaining current water usage levels. The offset framework also includes programmatic features aimed at increasing water use efficiencies for agricultural properties throughout the region.

Due to the complexity of this type of program, the RCD will utilize a multipronged approach that addresses the myriad of questions which arise in water poor regions wrought with conflicting agricultural water uses and crop processing technologies. Research and data collection will be paramount in the compilation of this program. To make this process more time-efficient, the RCD will recruit a select group of specialists (project team) who will input data on a weekly basis. The program component costs will vary based on existing available data and will be billed on a time and materials basis.

It is estimated that this program will be most productive and successful if developed and implemented in five phases:

<b><i>Phases</i></b>	<b><i>Completion Goals (Estimations Only)</i></b>
Phase 1 – Completion of Draft Offset Program	March 15, 2014
Phase 2 – Outreach & Education	April 30, 2014
Phase 3 – Final Offset Program Draft Completion	May 15, 2014
Phase 4 – Program Establishment and Monitoring Protocol Creation	June 1, 2014
Phase 5 – Implementation of Offset and Associated Monitoring Program	October 2014

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Please be advised that this is an iterative process and program development timeframes may require adjustment based on input from County staff, community members, technical advisors, ad/or community organizations and agricultural stakeholders.

## Background:

According to multiple studies of this basin, annual basin pumping is now at or near the basin's perennial yield (Paso Robles Groundwater Management Plan, 2011). From 1997–2009, water levels declined on average of 2–6 feet per year, depending on the location. A Todd Engineering monitoring report (2007) indicated that the Basin was not approaching the safe yield level and some areas were experiencing significant declines in groundwater elevations. A later study completed in 2009 suggested groundwater pumping was approaching the safe yield level of the Basin. The 2010 Resource Capacity Study prepared by the San Luis Obispo County Planning Department stated that the Basin is now near or at perennial yield levels. The County Board of Supervisors certified a Level of Severity III for the Paso Robles Basin in October, 2012, due to declining water levels. In August 2013, the County Board of Supervisors adopted an urgency ordinance to limit new draws from the Paso Robles Groundwater basin. The basin supplies water for 29% of SLO County's population and an estimated 40% of the agricultural production of the County (Paso Robles Groundwater Basin Blue Ribbon Committee, 2013).

## Project Team:

Lara Edwards, Executive Director – US-LT RCD

Kelly Gleason, Ag and Natural Resource Planner – US-LT RCD

Erin White, Administrative Coordinator – US-LT RCD

Biologist(s) – US-LT RCD

Hydrogeologist – (Jeff Barry, GSI)

Environmental Specialist – (LynneDee Althouse, Althouse and Meade)

Mark Battany, Agronomist – UC Davis Extension

GW Bates, Agricultural Engineer – CSLRCD

Hydrological/Agricultural Engineer – NRCS

Randy Heinzen, VPS Vineyard Manager, Board Member, US-LTRCD



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Water Specializing Legal Professional - TBD

Agricultural Professionals – NRCS

Economic Analyst - TBD

## Contract Fee:

This contract will be billed on a time and materials basis. The project team will meet on a weekly basis. Individual time will vary based on the amount of research and data analysis needed. The RCD will provide the County with appropriate accounting documents as the program progresses. Please be advised that this program will evolve based on technical and community input in addition to County staff and legal input. Depending on the direction of the program, additional technical advisors may be required to complete the agreed upon objectives.

### ***Hourly Rates:***

Lara Edwards, Executive Director – US-LT RCD	\$75
Kelly Gleason, Ag and Natural Resource Planner – US-LT RCD	\$65
Erin White, Administrative Coordinator – US-LT RCD	\$45
Biologist – US-LT RCD	\$85
Hydrogeologist(s) – (Jeff Barry, GEI + maybe one more)	\$150 - \$200
GIS Technician	\$85
LynneDee Althouse, Environmental Specialist – Althouse and Meade	\$85
Mark Battany, Agronomist – UC Davis Extension	\$0
GW Bates, Agricultural Engineer – CSLRCD	\$90
Dale Gropp, Hydrological/Agricultural Engineer – NRCS	\$TBD
Margy Lindquist, Agricultural Conservation Specialist, NRCS	\$TBD
Randy Heinzen, VPS Vineyard Manager, Board Member, US-LTRCD	\$TBD
Water Specializing Legal Professional, TBD	\$275 - \$400
Economic Analyst	TBD

An initial deposit of \$75,000 will be due at time of contract approval. Once funds have been used, the County will fund the project in increments of \$50,000. Any funds remaining upon completion of the project will be returned to the County.



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## Scope of Services:

### Phase 1: Draft Offset Program

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#### A. Offset Program Components

After conducting peer to peer interviews and performing early project feasibility assessments, the RCD has determined that the most effective program for this region would highlight five major elements:

##### 1. Rural Residential Fringe & Hobby Farm Landowners

Lying on the fringe of the areas with increased basin severity ratings are multiple rural “ranchettes” causing varying levels of impact ranging from minimal to mid-range to high. Irrigated pasturelands, horse boarding facilities and small production irrigated agriculture are of particular concern due to their high respective impact. Additionally, some areas have more densely populated clusters of domestic well homes that altogether create a larger water impact than some single family units.

The RCD proposes to further examine this sector of basin water users and establish a tiered exemption evaluation criterion. Getting water use efficiency education to the varying types of domestic and/or small scale commercial operations will be another important component of this program element.

##### 2. Crop conversion

A large number of agricultural producers will be seeking to redevelop their crop operations based on consumptive water use. Under this scenario, a producer may wish to stop cultivating X acreage of alfalfa in exchange for Y acreage of a higher or lower water using crop. Water credits will need to be evaluated using known water use data for the differing crops to determine the appropriate acreage exchange in addition to any water unit surpluses gleaned under this

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scenario. Technology efficiencies will be incentivized as part of this scenario through cost sharing program partner, NRCS. SLO County may also be able to assist with short term equipment loans. Lastly, all forms of farm redevelopment will require a high degree of communication to these end users and outreach will be provided as part of this program.

### 3. New Irrigated Agriculture

Any lands overlying the Paso Robles Groundwater Basin that are converted from non-irrigated to irrigated agricultural land will require water use offsets of a one-to-one ratio. Other producers will seek to expand crop production to a previously un-irrigated area of an existing agricultural property. These scenarios will require the development of an analysis tool which takes multiple data strains into consideration, including these more important aspects: site specific or region specific historic water usage, water use by crop type, and precipitation and recharge rates. This type of water balancing will require unique design and proximity parameters which will be evaluated and developed in this element. Technology efficiencies will be incentivized under this program element through cost sharing program partner, NRCS. SLO County may also be able to assist with short term equipment loans. Lastly, all forms of farm redevelopment will require a high degree of communication to these end users and outreach will be provided as part of this program.

### 4. Consumptive Water Use

Under this scenario, Agricultural users may want to install or employ facilities or processes that generate a net consumptive water use. Such operational changes may include installation of frost control devices and/or irrigation water storage reservoirs in addition to the establishment of a new wine processing facility which increases water use. Technology efficiencies will be incentivized here through cost sharing program partner, NRCS. SLO County may also be able to assist with short term equipment loans. Lastly, all forms of farm redevelopment will require a high degree of cross collaboration and outreach which will be provided as part of this program.

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## 5. Water Banking Program

The use of a water bank could be a viable future management option for the Paso Basin. There are major complexities involved in the creation of a water bank in addition to the many types of water banking styles. This program will create a project scoping detail to consider. The RCD believes, after meeting with consultants and conducting preliminary research, that a full banking program is not necessary for the development of an effective offset program. Note that the creation of a water bank requires an expanded time window (minimum 6 months) than the 3-4 month time window requested for this deliverable. If the County wishes to pursue this option, the RCD would contract with a water law attorney and financial consultant to achieve program implementation.

## B. Offset Program Work Plan

The Project Team will convene weekly to formulate a practical and efficient offset program. This team will be comprised of technical specialists in the areas of hydrogeology, hydrologic engineering, agronomy, land use and policy planning, environmental sciences and CEQA analysis, economics, water law, and agriculture. Key US-LT RCD staff and board members will facilitate the creation of the below listed deliverables with the project team:

### Task 1: Background data and research

#### *Subtask 1.1: Feasibility Analysis*

There are numerous components of the proposed offset program that need to be analyzed to determine the practicability and efficacy of potential water unit gains. Such analysis would include the following:

- Analysis of potential efficiencies and costs associated with the projected amount of water savings to determine estimated per water unit cost for irrigation and operation efficiency upgrades.
- Identification of BMP's and their application toward offsets and cost efficiency.

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- Identification of target applied irrigation rates for crop types throughout the basin area with analysis of potential water savings for applicable efficiency upgrades.

## ***Subtask 1.2: Impact Zone Study***

It will be important to consider the location of the increased groundwater development relative to where offsets and conservation measures can be applied to mitigate the impact to the groundwater resource. Criteria will be developed for allowed offsets and conservation measures considering the proximity of the offset to the zone of impact. Information and data that must accompany an offset or conservation proposal will be identified. Comparisons between existing high water use parcels and projected areas for Agricultural growth will be preformed to determine the feasibility of applying impact zone standards to the offset program.

## ***Subtask 1.3: Historical Water Use and Baseline Mapping***

Analysis of existing and historic (5-year) crop production in areas overlying the basin will be necessary to determine location of potential offsetting properties which currently produce high water use crops and to establish a baseline water usage for all Agricultural parcels overlying the effected region. The following information will need to be supplied by the County to complete this analysis:

- GIS parcel layer
- Annual Aerials for the last 5 years
- Related mapping and crop typing analysis previously completed by or for the County

## **Task 2: Scope water use transaction (water banking) program**

A number of water banks have been established in the western US that allow landowners needing water rights, mitigation credits, or offsets to purchase them and use them at a new location or sometimes for a new purpose. These credits can be temporary (annual) or permanent. In addition to holding these kinds of credits, water banks can also facilitate water right transfers for environmental benefits (in-stream), water right exchanges, or in-lieu uses. There are many details associated with developing a water use transaction program (WUTP) including finding funding, developing administrative functions, developing procedures for purchasing and selling credits or offsets, pricing temporary or permanent

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offsets, developing contracts, and legal analysis of how water rights can be transferred. For these reasons, we recommend that we initially scope the program, obtain input from the County and stakeholders, determine the cost of the program, and develop a roll-out plan. Because of the time involved in this task and likely controversy it will generate, we suggest waiting until the offset program is fully launched before rolling out any WUTP as a part of the offset program. Therefore, for this task we will provide background research and analysis of the complexities of establishing a financial based transaction program.

## **Task 3: Draft framework for offset program**

The RCD will compile and organize the researched and related offset program components into a draft program framework. We recognize that this is a complex program that will require technical input as well as legal and policy related input to ensure that a practicable enforceable program is created. The RCD will work closely with our project team and County staff to develop a program based on the uniqueness of the region while including successful strategies from related existing programs. This task includes the following:

- Methodology and standards for evaluating water offset units / water unit consumption
- Standards for determining historic water use of a participating property
- Identification of crop values and water needs to provide baseline maximum values for efficiency credits
- Offset implementation and monitoring analysis to determine factors and technologies necessary for successful program implementation and administration

## **Task 4: GIS mapping and data recordation framework**

During the development of the offset program, we envision that there will be a need to design and construct various maps and related GIS data to support the analysis of agricultural uses overlying the basin. The RCD also recognizes that much of this mapping and data entry will be useful for community outreach and education efforts as well as providing a baseline map and data record for implementation and monitoring of the offset program once adopted.

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## **Task 5: Preliminary community outreach**

The RCD has a strong reputation for effectively communicating with its constituency and so an important element of the offset program is public outreach. This may be in the form of written communication, town hall meetings, or presentations. Phase I of the project will include preliminary outreach efforts focused on responding to inquiries and supporting County staff efforts in introducing the concept of Ag water offsets to the region. More intensive outreach and public participation efforts will be included in Phase II of the project.

## **Phase 2: Outreach and Education (Future Phase)**

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Phase II of the development of the Agricultural Offset program will include a complete outreach and education effort which includes presentations of the draft program language to various community organizations, advisory boards, agricultural stakeholders, as well as Board of Supervisor presentations and responses to inquiries. The details and timing of this phase will be largely determined based on the resulting structure and framework of the program established in phase I. Detailed task lists and timing will be presented once program direction is known.

Preliminary components of the outreach effort include:

- Community Meet & Greets (gather input on offset program and introduce community to the concept and proposed framework of the program)
- Release draft offset program sections at Town Hall style sessions (gather input on draft language)
- Periodically reporting to essential County staff/representatives on draft progress

## **Phase 3: Final Offset Program Draft Completion (Future Phase)**

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This phase will include coordination with County staff to finalize staff reports and program language. The RCD and our project team will be available during this phase to field questions and provide technical expertise related to program components. Community outreach will be achieved through BOS meetings and response to inquiries from the public and interested parties.

## **Phase 4: Program Establishment and Monitoring Protocol Creation (Future Phase)**

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Establishment of a Agricultural offset program will require the creation processes and procedures related to the permitting and monitoring of participating landowners. This phase will include permitting and tracking software development and data input as well as fee studies to determine the administrative costs of the program. Included in this phase is finalization of GIS components and layers used to inform and track water unit credits as part of the offset program. Community outreach efforts will also be included in this phase focused on explaining the program components and highlighting water use efficiency opportunities promoted through the program.

### **Phase 5: Implementation of Offset and Associated Monitoring Program (Future Phase)**

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This phase includes implementation of the offset program to include permitting, tracking, monitoring, and continued data analysis. Details and term of this phase will be determined once program framework is known. Ongoing community outreach efforts will be included in this phase.

### **Notes and Disclaimers:**

*While we attempted to address this offset program in totality, there is a likelihood that some of these tasks will create the need to build on this program and expand the scope of work. As such, our project team may expand to include currently unforeseen specialists. Please also consider that our desired completion dates published in this proposal are estimates only. While we will make every attempt to fulfill those deadlines, time extensions may be required based on program research. To increase efficiency of this process, the RCD requests confidential access to County data that will enhance our project work, including but not limited to, certain GIS shapefiles and monitoring reports/data. As previously discussed and approved by the San Luis Obispo County Planning and Building Department staff, and upon the first billing, the RCD will include the staff and contractor time dedicated to the creation of this offset program proposal (retroactive to 10/24/13) including offset program related meetings with County staff. All data that is accumulated and developed as part of this offset program will be made available to the County. The RCD agrees to mutual input from the County with regard to sub-consultant roles of the project team.*